SMC-02-1308

December 15, 2003

To: Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572
28 Davis Avenue
Poughkeepsie, N.Y. 12603

Subject: Serial No. 10/672,395 09/26/03

C.H. Yu et al.

METHOD OF SELECTIVELY MAKING COPPER USING PLATING TECHNOLOGY

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on December 19, 2003.

Stephen B. Ackerman, Reg.# 37761

Signature/Date 12/19/03

U.S. Patent 6,420,258 to Chen et al., "Selective Growth of Copper for Advanced Metallization," describes a recent advance in copper deposition which involves a selective growth of copper by an electrochemical method on a conformal seed layer in a trench.

U.S. Patent 6,153,935 to Edelstein et al., "Dual Etch Stop/Diffusion Barrier for Damascene Interconnects," discloses a diffusion barrier cap selectively deposited on a metal interconnect which provides corrosion protection and improved electromigration resistance.

U.S. Patent 6,441,492 to Cunningham, "Diffusion Barriers for Copper Interconnect Systems," discusses a barrier layer which is rhenium, rhodium, or ruthenium formed on a copper interconnect and affords high resistance to Cu diffusion.

U.S. Patent 6,004,188 to Roy, "Method for Forming Copper Damascene Structures by Using a Daul CMP Barrier Layer," discloses an improved and new method for forming dual damascene CMP of copper lines and interconnects(studs) using a dual CMP barrier layer.

U.S. Patent 6,417,095 to Chen, "Method for Fabricating a Dual Damascene Structure," discusses a sacrificial layer used which eliminates the need for a CMP step.

U.S. Patent 6,528,426 to Olsen et al., "Integrated Circuit Interconnect and Method," discusses a SiC CMP stop layer utilized to protect an underlying mechanically weak dielectric layer such as porous SiO2.

U.S. Patent 6,509,267 to Woo et al., "Method of Forming Low Resistance Barrier on Low K Interconnect with Electrolessly Plated Copper Seed Layer," discusses conformal nitride and Ta barrier layers being formed on the sidewalls of a dielectric layer to prevent Cu from being sputtered onto the dielectric layer during a via etch.

U.S. Patent 6,482,741 to Ueno, "Copper Wiring Structure Comprising a Copper Material Buried in a Hollow of an Insulating Film and a Carbon Layer Between the Hollow and the Copper Material in Semiconductor Device and Method Fabricating the Same," discusses a carbon electroconductive layer formed on the sidewalls and bottom of an opening in an amorphous C and F containing dielectric layer by a plasma treatment.

Sincerely,

Stephen B. Ackerman,
Reg. No. 37761

Form PTO-1449

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(Use several sheets if necessary)

Docket Number (Optional)	Application Number
TSMC-02-1308	10/672,395
Applicant: C.H. Yu et al.	
Filing Date: 09/26/03	Group Art Unit

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6420258	7/16/02	Chen et al.	438	622	11/12/99
	6153935	11/28/00	Edelstein et al.	257	773	9/30/99
	6004188	12/21/99	Roy	451	41	9/10/98
	6417095	7/9/02	Chen	438	633	6/11/01
	6528426	3/4/03	Olsen et al.	438	689	10/15/99
	6509267	1/21/03	Woo et al.	438	687	6/20/01
	6482741	11/19/02	Ueno	438	687	8/20/99
	6441492	8/27/02	Cunningham	257	762	9/28/00

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	Translation NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.